

March 15, 2005

Natalie Rutherford  
Global Regulatory Manager  
FMC Corporation  
Agricultural Products Group  
1735 Market Street  
Philadelphia, PA 19103

Dear Ms. Rutherford:

The Office of Pollution Prevention and Toxics is transmitting EPA's comments on the robust summaries and test plan for 2,3-dihydro-2,2-dimethyl-7-benzofuranyl methylcarbamate, posted on the ChemRTK HPV Challenge Program Web site on February 27, 2004. I commend FMC Corporation for its commitment to the HPV Challenge Program.

EPA reviews test plans and robust summaries to determine whether the reported data and test plans will provide the data necessary to adequately characterize each SIDS endpoint. On its Challenge Web site, EPA has provided guidance for determining the adequacy of data and preparing test plans used to prioritize chemicals for further work.

EPA will post this letter and the enclosed comments on the HPV Challenge Web site within the next few days. As noted in the comments, we ask that FMC advise the Agency, within 60 days of this posting on the Web site, of any modifications to its submission. Please send any electronic revisions or comments to the following e-mail addresses: [oppt.ncic@epa.gov](mailto:oppt.ncic@epa.gov) and [chem.rtk@epa.gov](mailto:chem.rtk@epa.gov).

If you have any questions about this response, please contact Mark Townsend, Acting Chief of the HPV Chemicals Branch, at 202-564-8617. Submit questions about the HPV Challenge Program through the "Contact Us" link on the HPV Challenge Program Web site pages or through the TSCA Assistance Information Service (TSCA Hotline) at (202) 554-1404. The TSCA Hotline can also be reached by e-mail at [tsca-hotline@epa.gov](mailto:tsca-hotline@epa.gov).

I thank you for your submission and look forward to your continued participation in the HPV Challenge Program.

Sincerely,

/S/

Oscar Hernandez, Director  
Risk Assessment Division

Enclosure

cc: W. Penberthy  
M. E. Weber

**EPA Comments on Chemical RTK HPV Challenge Submission:  
2,3-Dihydro-2,2-dimethyl-7-benzofuranyl Methylcarbamate**

**Summary of EPA Comments**

The sponsor, FMC Corporation, submitted a test plan and robust summaries to EPA for 2,3-Dihydro-2,2-dimethyl-7-benzofuranyl methylcarbamate (CAS No. 1563-66-2) dated January 6, 2004. EPA posted the submission on the ChemRTK HPV Challenge Web site on February 27, 2004.

EPA has reviewed this submission and has reached the following conclusions:

1. Physicochemical Properties. The submitter needs to provide a decomposition temperature range for this chemical.
2. Environmental Fate. EPA suggests the submitter provide available data on biodegradation in soil.
3. Health Effects. The submitted data are adequate for the purposes of the HPV Challenge Program.
4. Ecological Effects. The submitted data are adequate for fish and aquatic invertebrate endpoints for the purposes of the HPV Challenge Program. The algal toxicity test is inadequate because a dispersant was used. The submitter needs to provide appropriate measured data. The submitter also needs to address deficiencies in the robust summaries.

EPA requests that the submitter advise the Agency within 60 days of any modifications to its submission.

**EPA Comments on the 2,3-Dihydro-2,2-dimethyl-7-benzofuranyl  
Methylcarbamate Challenge Submission**

**Test Plan**

Physicochemical Properties (melting point, boiling point, vapor pressure, water solubility, and partition coefficient)

The submitted data for melting point, vapor pressure, partition coefficient, and water solubility are adequate for the purposes of the HPV Challenge Program.

*Boiling point.* The submitter needs to provide a temperature range of decomposition for this chemical.

Environmental Fate (photodegradation, stability in water, biodegradation, fugacity)

The submitted data for photodegradation, stability in water, and fugacity are adequate for the purposes of the HPV Challenge Program.

*Biodegradation.* EPA agrees with the submitter's implication that the standard ready biodegradation test is not needed, given that substantial hydrolysis will occur during the test, and instead suggests that the submitter provide available data on biodegradation in soil.

The hydrolysis data included under biodegradation should also appear in the Stability in Water section.

Health Effects (acute toxicity, repeated-dose toxicity, genetic toxicity, and reproductive/developmental toxicity)

The submitted data are adequate for the purposes of the HPV Challenge Program.

Ecological Effects (fish, invertebrates, and algae)

The submitted data for fish and the aquatic invertebrate endpoints are adequate for the purposes of the HPV Challenge Program. The submitter needs to conduct an algal toxicity test without the use of dispersant or provide existing measured data on an appropriate analog.

*Algae.* The algal toxicity endpoint is not addressed adequately because the dispersant Tween 80 was used in the test. The use of dispersants is inappropriate in algal toxicity testing because of the potential for physicochemical interactions to influence the apparent toxicity of the test substance. The submitter needs to conduct an algal toxicity test without the use of dispersant or provide existing measured data on an appropriate analog.

**Specific Comments on the Robust Summaries**

Ecological Effects

*Fish and Invertebrates.* Water chemistry measurements such as hardness, dissolved oxygen, and pH were mentioned in the robust summary but the data were omitted. Information on effects seen and number of fish or daphnids affected at each concentration was not provided.

**Followup Activity**

EPA requests that the submitter advise the Agency within 60 days of any modifications to its submission.